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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/722,420	11/28/2000	C. Bertil Stromberg	10-1322	4639

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EXAMINER

ALVO, MARC S

ART UNIT

PAPER NUMBER

1731

DATE MAILED: 05/30/2002

6

Please find below and/or attached an Office communication concerning this application or proceeding.

TC-6

**Office Action Summary**

Application N .

09/722,420

Examiner

Steve Alvo

Applicant(s)

STROMBERG, C. BERTIL

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 February 2002.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 25 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over WO 92/03609.

The process steps of producing the product cannot be given probative weight in a product claim. WO 92/03609 teaches on pages 20 Example 20, bleaching a pulp with a DZED bleaching sequence to produce a pulp having a viscosity greater than 21 cp, e.g. 25.2 and having as brightness of 88.0 % GE. Applicant has not shown the claimed 89 ISO to be brighter than the 88.0 of WO 92/03609. It would have been obvious to the artisan to adjust the parameters to obtain a brighter pulp.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 92/03609 in view of NONNI.

The process steps of producing the product cannot be given probative weight in a product claim. WO 92/03609 teaches on pages 20 Example 50, bleaching a pulp with a DZED

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bleaching sequence to produce a pulp having a viscosity greater than 21 cp, e.g. 25.2 and having as brightness of 88.0 % GE. If necessary, NONNI teaches that adding oxygen and either hypochlorite or peroxide to an extraction (E) stage without incurring viscosity losses. If the claimed pulp is brighter than the pulp of WO 92/03609, then it would have been obvious to use the oxygen and either hypochlorite or peroxide of NONNI in the extraction stage of WO 92/03609 to increase the brightness without lowering the viscosity, e.g. using the sequence DZEopD or DZEohD.

Claims 1-3, 7, 8, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 93/15624.

WO 93/15624 teaches a DZE bleaching sequence without washing between stages (page 19, lines 9-13) and further teaches that the sequence can be repeated (DZEDZE) or followed with a DEo (DZEDEo) or DEp (DZEDEp) bleach sequence (page 24 lines 18-27). Obviously no washing is performed between D and Z as WO 93/15624 teaches carrying out the extraction without an intervening wash. See page 3 for bleaching chemical pulp. Claims 13 and 7 are rejected as page 24 of WO 93/15624 teaches other D and Z stages could be used. Claim 8; see page 19, lines 22-24.

Claims 4-6, 9-12 and 15-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 93/15624 as applied to claim 1 above, and further in view of ADMITTED PRIOR ART (specification, page 2, lines 19-25).

WO 93/15624 teaches treating chemical pulp. The ADMITTED PRIOR ART teaches that soda/anthraquinone is a well-known chemical pulping process. It would have been obvious

to one of ordinary skill in the art that the pulp of WO 93/15624 could have been prepared using any well-known process, such as the soda/AQ process of the ADMITTED PRIOR ART.

Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 93/15624 in view of ADMITTED PRIOR ART (specification, page 2, lines 19-25) as applied to claim 4 above, and further in view of SWEDISH APPLICATION 81020828 or NIMMERFROH et al.

SWEDISH APPLICATION 81020828 or NIMMERFROH et al teach using an N stage in combination with an alkaline stage lowers the kappa number and the water requirements, see SWEDISH APPLICATION 81020828 (16) or NIMMERFROH et al, translation, page 6, line 7. It would have been obvious to use an N-stage with the extraction stage of WO 93/15624 to lower the water requirements and the final kappa number as taught by SWEDISH APPLICATION 81020828 or NIMMERFROH et al.

The argument that WO 92/03609 teaches using a DZE sequence rather than the instant ZED sequence is not convincing as WO 92/03609 actually discloses a DZED sequence which includes the claimed ZED sequence. Claim 25 is a product claim and it does not matter how the product is formed. Besides it depends upon claim 23, which includes a D stage before the ZED sequence.

The argument that WO 92/03609 has a wash stage between the E and D stages is not convincing as WO 92/03609 teaches the extraction stage is followed by a further bleach stage. Chlorine dioxide, i.e. a D2 stage is preferred. Thus WO 92/03609 discloses directly following the E-stage with the D-stage without washing. WO 92/03609 discloses "As desired" a

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wash stage can be placed between the E and D2 stage, but this is only optional, not critical to WO 92/03609.

The argument that WO 93/15624 teaches repeating the DZE sequence without washing between stages to produce a DZEDEZ sequence is not convincing as repeating the DZE sequence produces a DZEDZE sequence without washing between the stages. Stages 2-4 of this 6 stage sequence does not differ from the claimed sequence. The claims are open and do not exclude stages 1, 5 and 6 of WO 93/15624. The argument that the prior art does not teach the extraction pH of claim 2 is not convincing as WO 93/15624 teaches using a pH of 10.5 or higher during the extraction stage, see WO 93/15624, page 19, lines 19-21.

The argument that WO 93/15624 adds oxygen or peroxide after the extraction stage is not convincing as WO 93/15624 teaches that the extraction may “include” oxygen or peroxide and can subsequently be further delignified by the process of the invention, see page 19, line 22 and page 19-, line 33 to page 20, line 2.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the **primary examiner** should be directed to **Steve Alvo** whose telephone number is (703) 308-2048. The Examiner can normally be reached on Monday - Friday from 6:00 AM - 2:30 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Stanley Silverman, can be reached on 703-308-3837.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Group receptionist** whose telephone number is **(703) 308-0661**.

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Carolyn E. Johnson, Marshall Gaddis, Bessie Bowie, Lucy Jones.

MSA  
May 24, 2002



**STEVE ALVO**  
**PRIMARY EXAMINER**  
**ART UNIT 1731**